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Domestic Responses to Capital Market Internationalization under the Gold Standard, 1870-1914

DANIEL VERDIER

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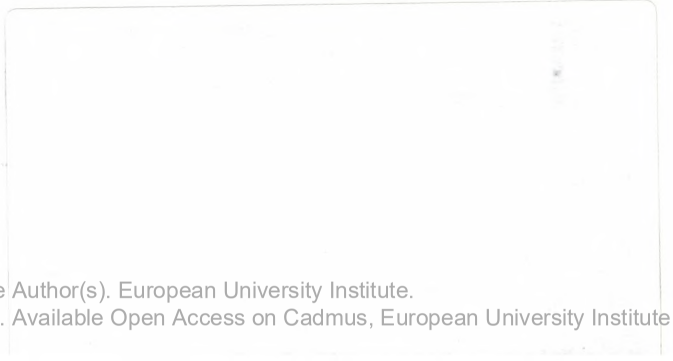

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ABSTRACT

The internationalization of capital markets that occurred during the era of the classical gold standard (1870-1914) was part of a broader set of trends that threatened to drain local markets from capital and channel that capital to the national financial center and, from there, toward other national financial centers. Still, internationalization was neither inevitable, uniform, nor irreversible, but was a political choice informed by redistributional considerations between rival domestic interests and decided by politically dominant coalitions. The domestic institutional structure in each country determined the composition of the politically dominant coalition. Decentralized structures allowed potential losers to curb public policies favorable to capital market internationalization, whereas centralized structures allowed expected winners to promote such policies. As a result, economies with centralized states ended up being the most dependent on the international capital market, whereas economies with decentralized states took a less active part in the globalization of finance.

The internationalization of finance in recent years has brought the world economy to the level it had reached in 1913. With this has come a political debate about the vices and virtues of globalization and an analytic debate about its causes. This paper presents an analysis of the earlier period that highlights the importance of political choices in bringing about the internationalization of finance and stresses the variability of choice among countries experiencing the same global phenomenon.

One can hardly open a news magazine nowadays that does not feature an editorial warning against, or urging some kind of adjustment to, capital market globalization. Underlying this "global talk" are the beliefs that capital market internationalization is inevitable, uniform, and irreversible. The scientific debate shows more nuances, focusing mainly on the respective roles played by political and non-political factors. One group of scholars see capital internationalization originating in changes in technology or the international power system or both.[1] They trace its distortionary impact on existing wealth distribution, with the relative immiseration of unskilled labor in the West and, more generally, of holders of immobile factors of production or sectors using these factors intensively.[2] Some of them see internationalization as resulting in a weakening of state bureaucracies.[3] Another group of scholars place the emphasis, instead, on state-borrowing preferences as the primary vehicle for global finance,[4] on coordination among states as a facilitating mechanism,[5] and on the mediating role of state institutions and resulting divergent policy responses.[6]

It is not the first time that cross-border capital flows grow out of ordinary proportions. A century ago, during the period of the gold standard, the world experienced levels of capital internationalization comparable, if not higher, than current ones. Yet hardly any of the most extreme predictions associated with today's occurrence were realized: internationalization was neither inevitable, uniform, nor notably successful--Britain and France, who embraced internationalization, grew more slowly than Germany and the United States, who accepted lower levels of capital market interdependence. And, of course, internationalization was reversed.

Two lessons can be drawn from the nineteenth-century stab at capital internationalization. First, internationalization was a political choice informed by redistributional considerations between rival domestic interests and decided by coalitions on which governments were dependent for support. The choice in favor of openness reflected the economic preferences of large commercial banks in alliance with savers in creditor countries and of large firms in debtor

countries, all of whom expected to benefit from openness. In contrast, the choice in favor of lesser capital interdependence reflected the preferences of sectors that were expected to lose from openness, including agriculture and sectors with a high density of small- and medium-sized firms.

Second, the domestic institutional structure in each country determined the identity of the politically dominant coalition. Decentralized structures allowed potential losers to curb public policies favorable to capital market internationalization, whereas centralized structures allowed expected winners to promote such policies. As a result, economies with centralized states ended up being the most dependent on the international capital market, whereas economies with decentralized states took a less active part in the globalization of finance.

The present inquiry into the functioning of turn-of-the-century capital markets innovates on two further counts. First, unlike most studies of internationalization, the present study parts with comparative statics.[7] As generally recognized, internationalization is a process that feeds on itself, calling for a dynamic model. Second, the present study modifies the standard approach to the redistributional effects of capital flows.[8] Economic in its inspiration, the standard approach points to the cleavage between savers and non-savers, two politically inept groupings on account of size and diffusion. Yet concerns over the wealth effects of financial flows have not remained uniformly unvoiced. They were articulated in a majority of countries along another line of cleavage--the center-periphery cleavage--pitting each central government against its respective local governments.

The first part of the paper presents the theoretical framework, the second part the argument, and then the third part the evidence. The conclusion will summarize the findings and amplify the themes of this introduction.

I. THE MODEL

Internationalization has a dynamic, historical character: it feeds on itself. Although all studies of internationalization acknowledge this feature, they fail to draw the appropriate methodological consequence.

When inquiring into the origins of internationalization, all authors concur in listing two sets of determining factors: (1) technological innovations yielding reductions in cross-border transaction costs, and (2) government policies easing cross-border capital flows.[9] Although technological innovations may, in some circumstances, be viewed as exogenous shocks, government policies are

unequivocally endogenous to the mechanism of internationalization. Causal models of the comparative statics type cannot supply the proper explanation; internationalization would be serving both as independent and dependent variable--an axiomatic non sequitur for this kind of model. That circularity must instead be explicitly tackled through a dynamic model.

The need for a dynamic approach is far from being universally shared. Studies of internationalization that seek to explain internationalization, instead, try to fit it into the Procrustean bed of comparative statics, with circularity being avoided in one of two ways: (1) technological determinism, which makes technological innovation exogenous and uses it to determine the model;[10] and (2) structural determinism, which sees internationalization as the suboptimal outcome of states' competitive bidding for international capital.[11] Technological determinism, however, goes against recent developments in "new growth" theory, making innovation a process that is endogenous to firms' profit-maximizing strategies, which states can influence through diverse policies.[12] With respect to the second claim, only the future will tell whether the deregulatory race between states for capital is structural or contingent on reversible domestic changes. The fact that the same countries already went through a similar race under the gold standard weakens considerably the claim that today's competition is there to stay.

A simple dynamic model features a two-period decision process, allowing for a change in the state of nature in between. In the first period, the government is confronted with a technological innovation that promises to ease internationalization in the second period if the regulatory status quo is left unchanged and if the innovation is allowed to move down its learning curve, that is, be adopted, diffused, and improved through learning by doing. The government decides on the basis of expected return and opportunity cost, taking into account what other countries might do, whether to check the innovation by means of countervailing policies or let it mature. If the innovation is aborted, then internationalization will not ensue, and the degree of openness will remain unchanged in the second period. If, instead, the innovation is allowed to mature, internationalization will proceed, and the degree of openness of the capital market will be higher in the second period than in the first.

I now amend the story to make space for coalitions and institutions. Assume that the government decision is the outcome of a policy process in which the most organized interests get to impose their policy preferences. Private interests in the first period anticipate the future distributional effects of the initial innovation were it to run its course in the second period. Anticipated losers will try to nip the innovation in the bud if they can politically organize. Whether or

not they can organize depends on the nature of extant domestic institutions (or a subset thereof). To the extent that countries have different institutions, the degree of internationalization chosen by each government will differ, reflecting institutional variation.

One advantage of setting up the problem this way is not to confuse the outcome--the degree of openness to capital flows achieved by each country--with the cause--an exogenous innovation promising gains and losses tomorrow to interests that can anticipate its wealth effects and act accordingly now. Internationalization is not ordained in the present formulation, but unlikely to proceed very far if potential losers enjoy political power. Another advantage is to differentiate the initial technological innovation, which may be treated as exogenous to politics, from the price shock that will result from the widespread adoption of the innovation, which is endogenous.[13] A possible drawback of the present formulation comes from its perhaps excessive simplicity; the process is reduced to only two periods with actors graced with the gift of perfect foresight. Reality may afford many more periods, with individuals and governments exhibiting a present foresight limited to the next period alone and a present latitude constrained by decisions made in the prior period. The two-stage set-up, however, with its perfect foresight implication, makes the presentation of the material clearer.

Applying this model to the case of capital market internationalization under the gold standard will require completing three successive steps: (1) extract from the late-nineteenth-century historical reality the exogenous technological changes that had the potential to increase cross-border investment in all countries; (2) derive the potential domestic losers from this innovation, assess their nonmarket options in light of their institutional power, and then derive each country's policy response; and (3) derive the predicted degree of openness to international capital flows that each country should have eventually reached according to the model. The next past of the paper presents the three-step argument, and the third part confronts it with the historical record.

II. THE ARGUMENT

Changes in Banking Technology and the Demand for Short Assets[14]

The surge in capital flows witnessed under the gold standard, I argue in this and the next two sections, originated in a demand for foreign investments, not merely long, as usually noted, but more importantly short. Banks in the late-19th century had a need for short assets, which the international capital market

could supply. In this and the next sections I focus on the demand and supply side of short-term assets.

Banking until the mid-nineteenth century relied on personal connections. Bankers would borrow from and lend to individuals whom they knew well, either because they lived in the same towns or because borrowers and bank shareholders were often the same people--a relation that Naomi Lamoreaux has appropriately dubbed "insider lending."[15] Philip Cottrell wrote of the English country banks:

> *Until the 1880s English country banks were products of the localities and regions that they served; customers and shareholders were frequently the same people. The bank's constituencies both owned the banks and did business with them. Directors and managers knew their customers well and with prudence and local knowledge were prepared to go beyond the bounds of short-term lending.*[16]

Where local, personal connections were unavailing, banks would simply not lend to enterprises. Gustav Mevissen, a co-director of the Bank of Darmstadt, made the point with utmost clarity in an instruction to the bank management written at mid-century:

> *The task of our bank is not to attract the business of industrial and commercial enterprise in general. On the contrary, it will be our mission to establish contact with all government institutions, joint-stock companies, and wealthy private persons in the hope of obtaining as large a share of the business of governments, of princes and principates, as well as joint-stock companies and wealthy private persons as possible.*[17]

By the middle of the century banking evolved into a more impersonal and professional activity under the pressure of two circumstances. The first circumstance was the rise in individual deposits and the simultaneous decline of bank equity and note issuing. Until mid-century, there were only two main ways of procuring capital in large quantity--note issuing, which in many countries already was, or about to become, regulated by government, and equity; deposits played a marginal role. By mid-century, however, the spread of industrialization led to a relative enlargement of the saving public and to a shift of the public's preferences from cash to checks (or credit transfers) for transaction purposes. Demand for deposit accounts, long and short, grew so much that it became thinkable for private bankers to finance lending with deposits taken from numerous individuals with whom they had no prior or other dealings. Banks saw in deposit-taking a way of improving profitability. Depositors typically earned less than bank shareholders; by increasing the share of deposits relative to capital, banks could increase earning on capital. The second part of the

nineteenth century thus saw in most countries a rush toward deposit banking. Leading in this new type of banking were the clearing banks in England and Wales, the Crédit Lyonnais in France, and the Deutsche Bank in Germany.

Deposits grew in the economy as a whole relative to gross national product (GNP) and in the banking sector relative to other banking resources.[18] The rising importance of deposits created a liquidity problem for the banks for two reasons. First, deposits were short-term assets. Although banks tried to lengthen the maturity of deposits by creating term deposits, according to which early withdrawals carried penalties, they could never prevent depositors confronted with the danger of a bank run from cashing their savings rather than facing the risk of losing them all. Second, unlike stockholders, depositors had no insider information on the good management and solvency of the bank. They could not monitor the management nor draw a reliable assessment of the bank's solvency. They relied instead on rumor, with the result that banks were subject to "sunspot" panics, that is, runs on deposits with no other rationale than each depositor's fear of being the victim of other depositors' fear of runs. A run on a bank would trigger a run on other banks if it were believed that the collapse of the first bank would weaken the liquidity of the others, as was often the case.[19]

The liquidity problem arising from the generalization of deposits was compounded by another circumstantial change, taking the form of the progressive replacement of the bill of exchange by overdrafts.[20] The substitution was caused by multiple separate changes, including the reduction in transport costs, changes in sale and payment practices (buyers paying cash to take advantage of discounts), the telegraphic transfer of payments, and firms relying on checks in general to effect payment.[21] Overdrafts were better remunerated than bills, but they were easily renewed and thus less liquid. Unlike bills, moreover, advances could not be readily recycled through rediscounting at the central bank.

Relying on more volatile resources (deposits) to finance less liquid assets (overdrafts), banks were caught in a liquidity squeeze. They became aware of it in the wake of a string of banking crises, during which deposits were withdrawn in exchange for coin and central bank notes. Hence, Michael Collins notes that after each crisis in England and Wales, the most severe being the crash of the City of Glasgow Bank in 1878, the banks tended to maintain a higher proportion of very liquid assets.[22] Jean Bouvier notes that the crash of 1882 in France served to disqualify loans to industry in the eyes of Henri Germain, the director of the Crédit Lyonnais.[23]

The standard response to the liquidity crisis was for banks to move to a form of banking that was safer. This meant developing standard lending procedures and thus more interchangeable and negotiable instruments, which could be used as secondary forms of liquidity. But since standardization could more easily be achieved in short-term lending than in long-term lending, standardization amounted to shortening the maturity of most assets: commercial banks would abandon their initial universality, specializing instead in short-term lending.[24] Short, standardized assets had the advantage of being readily disposable in periods of crisis. But they had two drawbacks. First, they yielded lower profits. Second, safe paper was hard to find, especially now that overdrafts were displacing trade bills. In London, Paris, Milan, and Berlin, bankers complained about a persistent shortage in "good" paper, increasingly limited to international acceptances, that is, to bills generated by the settlement of international trade.[25] The important role played by good paper in the smooth functioning of the monetary market placed these international centers into competition for the naturalization of the market for acceptances.[26] This shortage was also responsible for the revival of competition, noted in several countries, between the central bank and the deposit banks.[27]

The higher demand for good paper elicited new profit-making strategies--amalgamation, centralization, and internationalization. All three aimed at relieving the need for good paper through greater productivity and higher volume. Amalgamation allowed banks to take advantage of the internal scale economies released by the move toward standardization. It is important to note that no such economies of scale existed during the first half of the century, when banking was still a matter of personal connections and when profits sanctioned investments in high-yield, low-volume loans to local industries. Only after banks had been forced to abandon their long-term positions in local firms and to compensate for low yield through high volume did amalgamation become a profitable strategy. Amalgamation reduced bank capital requirements, improving earning potential. Amalgamation also allowed merging banks to rationalize their asset portfolio, taking over the best paper held by their competitors and liquidating less desirable items.[28]

Amalgamation naturally led to centralization--the relocation of bank headquarters in financial centers. Centralization allowed banks to capture external scale economies: central clearing allowed banks to economize on working balances, and the greater breadth of the market increased the liquidity of security issues.[29] Moreover, centralization allowed banks to enter lucrative lines of activity, such as the underwriting of government and railroad loans. Centralization finally led to internationalization, since among these government

loans figured those to foreign governments, until then the exclusive province of prestigious private banking houses.[30]

In sum, the liquidity squeeze that characterized commercial banking during the second half of the nineteenth century created a demand for short assets and led banks to pursue a profit-making strategy geared to the capture of a larger share of the relatively diminishing supply of short assets.

The Gold Standard and the Supply of Short Assets

The gold standard gave a boost to international capital markets, making possible an absolute increase in the coveted short instruments. It did so directly, though to a small extent, by assisting the market for acceptances, and indirectly, yet to a greater extent, by giving a boost to long-term credits.

The gold standard first assisted the market for short-term capital, that of international acceptances, by reducing the currency risk. We do not know to what extent. Surely, the currency risk was already low under preceding bimetallism. Moreover, the market for international acceptances was, from 1870 on, monopolized by London; international acceptances did play substitute for vanishing bills of exchange in Britain, but not elsewhere. The greatest contribution to the uniform supply of short assets across financial centers, I believe, was more indirect; it was a spin-off of the boom in long-term foreign investment. I first develop the impact of the gold standard on long-term foreign investment and then its related effects on banks' short assets.

The gold standard stimulated the long-term financial market. Operating as a commitment rule, according to which gold countries pledged to maintain a fixed parity between one unit of their currency and a given quantity of gold, the gold standard made possible the systematic transfer of capital from capital-rich and slow-growing economies to capital-poor and fast-growing economies.[31] Countries seeking long-term foreign capital paid lower interest rates on loans contracted in London, Paris, Berlin and other financial centers if they adhered to the gold standard.[32] In the Russian and Austrian empires, partisans of industrialization thought that industrialization could be a speedy process if foreign capital intervened to stimulate it; foreign capital would come by going on gold.[33] Reflecting on the experience of Spain, which suspended gold convertibility in 1883, Pablo Martin-Aceña argued that, by staying out of the gold standard, "Spain missed on growth."[34] Not only did imports of foreign capital cease from 1883 until 1906, when a new administration finally opted for a return to gold, but yields on the public debt were "consistently maintained above British, French, and even Italian yields."[35]

The generalization of the gold standard coincided with a rise in international capital outflows to levels that were never approached before and have never been approached since. Bairoch's estimates for capital flows for all net creditor countries show a slowdown in the depression decades of the gold standard, followed by an unprecedented surge after 1900:

1840-1870: 2.5-3.5 percent GNP
1870-1900: 1.5-2.0 percent GNP
1900-1913: 5.5 percent GNP.[36]

Comparable data for the 1920s, 1960s, and 1970s were below 1 percent.

Most of this investment, about three-fourths, came from three countries (United Kingdom, France, and Germany), which were running persistent current account surpluses by generating savings in excess of domestic investment. Relative to total domestic savings, net capital outflows in 1910 represented 52 percent for the United Kingdom and 15 percent for France.[37] The rest was contributed by the Netherlands, Belgium, Switzerland, and, toward the end of the period, Sweden. Most of this investment went to a few countries--the United States, Canada, Australasia, Argentina, Brazil, Mexico, Russia, Spain, Portugal, Italy, Austria-Hungary, and the Scandinavian countries.[38]

What made foreign investment so popular among savers in Britain, France, Germany, and other creditor countries was its greater safety, at equivalent yield, than domestic paper. In the case of Britain, Michael Edelstein found that overseas returns exceeded home returns over the years 1870-1913; he also found that overseas returns were not significantly riskier than domestic returns, but in fact tended to be less so.[39] The greater safety of foreign investments relative to home investments is easily explained; it derived from the nature of these investments, which, according to Arthur Bloomfield, "depended directly or indirectly on government action."[40] Loans either went to foreign governments (Russia and countries in central and southern Europe), or, even when loans went to private companies, as in the case of railroad construction and other public investments (utilities, roads, bridges, harbors, telegraph and telephone networks), they were made possible by government assistance in the form of guarantees, land loans, and cash grants. Finally, the bulk of this investment was portfolio; a generous estimate places the relative share of direct investment of the total long-term international debt in 1914 at only 35 percent.[41]

The higher yield of foreign over domestic investments holding risk constant, albeit empirically established, is more difficult to explain. Edelstein offered two interesting hypotheses.[42] A first hypothesis, which the author thought to be

valid in the case of the United States, views foreign returns constantly running ahead of expectations: "Overseas regions had a tendency to generate greater amounts of profitable innovations and new market opportunities, periodically fostering greater disequilibria, which in turn left their mark on realized returns." A second hypothesis looks for higher returns in market imperfection: "Overseas areas evinced a tendency to generate more circumstances involving imperfect competition and, possibly, greater monopoly rents." The active role played by host governments in attracting foreign capital predictably was a consequential source of monopoly rents.

A third hypothesis, I venture, was the relative backwardness of receiving countries. With the exception of the Netherlands, creditor countries (Britain, France, Germany, Belgium, Switzerland) were generally more advanced industrially than debtor countries. The differential timing of industrialization triggered a product-cycle effect: high-growth sectors in debtor countries were already stable- (or low-) growth sectors in creditor countries. Although yields on new ventures may have been the same, risks were lower in newly industrializing economies. In contrast, investing in an advanced economy meant putting one's money into new ventures with untested rates of return.

The boom in long-term flows would supply banks with the short assets they were so desperately looking for in two ways. First, the joint-stock commercial banks on the continent, and later in Britain, took over the floating and placement of long-term bonds. Although these bonds were nominally long term, and banks standardly held onto such bonds no longer than it took to place them among their clienteles, the safety and trading volume of these instruments made them easily disposable assets, easily convertible into cash, and thus de facto substitutes for short-term paper.

Second, commercial banks would float a government or government-guaranteed long-term bond issue provided that they be given a share in the more lucrative short-term debt issued by these same governments. The volume of a short-term government paper depended a lot, in the end, on the popularity of its equivalent long-term debt, since the usual way of repaying the short-term debt was to consolidate it into long-term debt. The more savers would purchase bonds issued by foreign governments, the more bankers would consent advances to foreign governments. Short-term government debt was usually safer than its long-term equivalent, since no treasury, even if compelled to default on its long-term debt, could afford to default on its short-term debt, lest it be forced to immediate shutdown.

By taking a part in long-term foreign government investment, joint-stock banks thereby gained access in proportional amount to a supply of short-term government debt, which, unlike the market for acceptances, could not be monopolized by London. It could not be monopolized by The City because of the implicit links just mentioned between long and short government debt imposed by bankers, and because long-term debt, unlike short-term debt, exhibited fewer scale economies. London bankers largely financed world short-term transactions by the positive current accounts held by traders in London, with the result that any increase in world trade spontaneously yielded an equivalent increase in bank resources. Long-term lending, in contrast, was financed by savings, making the size of domestic savings accumulated in any specific country a constraint on how much the banks in that country could lend. The reasoning applies to both creditor and debtor countries. Loans were floated by international syndicates of bankers, including banks from both debtor and creditor countries. The bonds would be issued both in the lending and the borrowing country. Moreover, there was a tendency over time for government bonds and good railway securities issued in Berlin, Paris, or London to return to domestic investors, who held them as chief long-term saving instruments, earning interests in marks, francs, or sterling. As a result, English, French, German, Dutch, Belgian, and Danish government securities were entirely held at home by the mid-1870s; Austrian and Hungarian investors owned two-thirds of their own state debt; U.S. government securities were almost entirely taken and held at home.[43]

In sum, the gold standard supplied financial centers with a high volume of instruments, more liquid, yet no less rewarding, than domestic instruments. Although investors in foreign securities faced an additional currency risk, the function of the gold standard was to nullify that risk.

The Redistributional Challenge: Specialization, Centralization, and Internationalization of Capital Markets

The two preceding sections together point to two sets of changes that would challenge traditional ways of banking. On the domestic front, first, the deposits revolution precipitated a demand for "shorter" assets. The decline of the bill of exchange, by deteriorating the liquidity of commercial banks, forced banks to abandon the intermediation of unsafe industrial paper and specialize instead into the intermediation of shorter paper. On the international front, simultaneously, the gold standard enabled the expansion of a global market for short government paper with the potential to supply new depositors' and banks' increasing demand for short assets.

Although the need for clarity somewhat forced the argument into a causal, linear, and perhaps excessively deterministic mode, it is important to appreciate that the "push" exerted by the technological changes happening in mid-nineteenth-century banking structures was supplemented by the "pull" of internationalization. Market players do not ride structural changes blindly; they make them happen by anticipating future payoffs and choosing profit-maximizing strategies through backward induction. Had the demand for short assets found no supply, savers and banks would have had to be content with existing long-term opportunities; deposits may not have grown as fast, nor may have banks found amalgamation a solution to illiquidity.

This mutually reinforcing dynamic upset established ways of banking. Bank specialization in short loans threatened the estrangement of bank and industry, the latter being left to its own means and to the security market for the provision of long-term capital. The same specialization also threatened a centralization of domestic capital markets through the concentration of banking around a handful of gigantic, tentacular banks, draining local savings to the financial center and investing its proceeds into government and foreign securities. An increase in the trading of foreign assets threatened the internationalization of capital markets and a greater dependence on external events.

Specialization, centralization, and internationalization of banking occurred in Britain and France. We also know that many other countries experienced an evolution quite different from that of Britain and France. The fact is that there was more than the British or French ways of responding to this challenge, and that each country chose the way that best suited its institutional setting. To this differential response we will turn once we have identified the micro wealth effects of late-nineteenth-century globalization.

Potential Winners and Losers

The challenge that we have so far identified--the specialization, centralization, and internationalization of banking--is "macro"; yet politics, as we know, is mediated by individuals, who join producer groups--sector, class, or locale--to press their individual preferences on their respective government. To be able to account for a government's response to the broad challenge thus identified, that challenge needs to be made relevant to individuals' welfare; the challenge must be disaggregated and its potential wealth effects mapped.[44]

The surge in capital flows across borders would have, within each nation, two intersecting distributional consequences: (1) between savers and borrowers, and (2) between the financial center and the peripheries. The first cleavage, in

accordance with standard Heckscher-Ohlin premises, would pit borrowers against savers. Domestic savers in creditor countries would be better off, for they would be offered a wider and better array of investment opportunities. In contrast, local borrowers of capital, who were dependent on external finance, would be relatively worse off, for they would be in competition with foreign borrowers to attract capital and thus pressed to remunerate it better. The situation was the exact reverse in debtor countries. Moving to the gold standard would hurt local savers, since they would be competing with foreign savers for a given demand for capital, whereas local borrowers would benefit from it.

The second cleavage was the center-periphery cleavage, running in each country between the financial center and local industrial and agrarian districts. I pointed earlier to a twofold trend toward greater centralization of the banking sector and greater liquidity through shorter lending. A likely consequence would be the estrangement of bank and industry: banks avoiding any form of industrial paper as unsafe. Although this is the conclusion that some historians of British and French capital markets have reached, the picture needs to be refined.[45]

Lamoreaux provides an interesting typology of how a firm's need for bank loans changes through its life cyle. Drawing from notions that are now common in information economics as applied to industrial organization, she argues that,

> *as firms grow and mature their sources of funding should change ... because as firms become better established, more information is available about them, and as a result they can take advantage of cheaper techniques for tapping outside pools of savings.*[46]

Start-ups have to rely essentially on internal funding--the wealth of their founders. In contrast, firms with a well-established track record can rely for external funding on the equity markets. It is between these two stages, when the firm is too large to expand on the sole basis of internal funding, yet still too small to enable individual investors to evaluate its earning potential with a modicum of confidence, that firms need bank assistance. Quoting from Lamoreaux again,

> *Because collecting information about firms in this [intermediate] stage is too costly for investors to take on individually, this function must be performed by intermediaries, such as banks, whose responsibility is to serve as "delegated monitors"--that is, to collect information about and monitor closely the institutions to which they grant credit.*[47]

Banks can perform the function of "delegated monitor"--and purveyor of long-term capital to the maturing firm--provided that two conditions are simultaneously realized. The first condition is that bank and firm be close enough, physically, for the bank to monitor the firm. Physical presence may be had through geographic proximity and common membership in local networks that function on social control and reputation. The condition is well-known in cooperative banking in which local, unsecured projects receive funding at very reasonable rates only because the members of the cooperatives know the borrower personally.[48] Physical presence can also be realized by the presence of the banker on the board of directors of the funded company--a widespread practice among European universal banks.[49] Through geographic proximity or board membership, a bank can monitor a firm's performance adequately and grant it external funding accordingly.

A second condition for effective bank monitoring and purveying of long-term capital is, of course, the bank's willingness to lend long. A banker should be disposed to see the short-term credits granted to firms renewed and consolidated into de facto long-term advances should these firms experience temporary cash-flow problems or have a need for expansion or modernization.

The two conditions for effective bank monitoring--physical presence and long-term lending--would be difficult to realize were the previously analyzed trends in capital markets to proceed unbridled. The trend toward centralization made local banking more difficult, for local branch directors could not be trusted to enforce the lending preferences of their bank headquarters. The trend toward concentration made monitoring through physical presence at board meetings impractical for the small- and medium-sized firms, for bankers were able to attend only so many board meetings in a year, preferably those of the largest companies. Finally, the liquidity crises experienced by banks made them less willing to immobilize their resources in industry.

A lesser capacity by banks to monitor firms would compel banks to refrain from lending to small- and medium-sized firms. Too large to rely on internal funding, yet not large enough to raise external capital on the equity markets, these firms would be unable to build up their long-term capital. The centralization of capital markets threatened to thin the ranks of small- and medium-sized firms.

More generally, centralization threatened to depress the industrial vitality of regions with a concentration of small- and medium-sized firms. Recent research on flexible specialization points to the existence in nineteenth-century Europe of what Alfred Marshall called "industrial districts"--regional production systems, like those found in Sheffield and Solingen (cutlery), Lyons (silk),

Vaud and Neûchatel (watch-making), and Bologna (metalworking), based exclusively on small- and medium-sized firms.[50] Industrial districts were networks of small enterprises working together to serve differentiated and volatile international markets with quality, specialty products. Product flexibility disqualified internal scale economies, thriving instead on the external scale economies generated by the agglomeration of versatile, low-capitalized firms, spreading risk among one another. Firms in industrial districts used a skilled workforce and relied on local municipalities, guilds, and trade associations to supply them with the necessary externalities--vocational training, price and wage regulation, marketing facilities, quality normalization, and, more importantly to the present study, access to capital. Capital for industrial districts was provided by local banks--private and savings--and credit cooperatives. All countries had, by 1850, a high concentration of industrial districts; large, vertically-integrated production serving mass markets was still embryonic. The centralization of capital markets under the two-pronged impact of bank amalgamation and market globalization threatened to dry up one of the key inputs to production in industrial districts--access to capital. The foreseeable monopolizing of deposit-taking by a handful of risk-averse, center-located banks, each at the head of a countrywide network of branch offices, threatened to drain local districts from individual savings and channel it instead into national and foreign government-backed paper. Changes in capital markets caused a tension between center and periphery.

While the reasoning so far has borne on creditor countries, that is, countries with spare money to invest abroad, the draining of peripheral capital was as likely to affect debtor countries, countries with an investment demand in excess of domestic savings. Not all local borrowers in debtor countries could benefit from the infusion of foreign capital. As already mentioned, foreign capital had a preference for safety. Foreign capital also had a preference, all else equal, for large, visible investments, easier to monitor from afar than small, unreported ones. The preference for safety and the steeper monitoring costs faced by foreign savers therefore tended to divide local investors into two groups: the state-sponsored, large investors, who would get access to the foreign manna, and the small, unsponsored investors, who would be bypassed.

Not only would small and medium-sized firms in debtor countries be unlikely to receive foreign investment, but they were in danger of losing their privileged access to local capital as well. Foreign capital had a seeding effect; the effect of an initial infusion, in Platt's words, was "to stimulate domestic finance, to supply domestic savings with the confidence and familiarity that capitalists required for new forms of investment."[51] Since this demonstration effect operated exclusively in favor of concentrated sectors, it might exert a centripetal

attraction on peripheral capital until then vested in local projects. Local, decentralized districts might lose from local savers' greater awareness of new investment opportunities in their own country. The joint stock banks threatened to drain peripheral capital irrespective of the debtor or creditor status of the country.

A caveat is in order. Not all peripheral districts would necessarily suffer from the centralization and globalization of capital markets. Those districts that accommodated the rise of large, vertically-integrated, "autarkic" (in Gary Herrigel's terminology) firms, which were large enough to efficiently tap equity markets, would not necessarily be harmed by the decline of local, industrial banking, because the rise of large industry would compensate for the decline in craft-oriented sectors.[52] One would expect these districts and the firms to which they were home to espouse the cause of centralization or, at least, be conflicted--indeed, although the large firm provided local employment, its interest in the welfare of its local host was circumstantial and reversible.

Table 1 summarizes the mapping of the potential distortionary effects of the centralization and extroversion of capital markets under the gold standard. In creditor countries, the expected winners were the savers and the center banks; the expected losers were the industrial districts, with their fabric of small- and medium-sized firms, local banks, and local governments and farmers in general. Large firms were unaffected and thus indifferent. In debtor countries, the potential winners were the center banks and all firms either benefiting from the state guarantee on their debt or enjoying sufficient international visibility on their own to attract foreign investments; the potential losers were the savers and the industrial and farm districts.

[Table 1]

The Losers' Nonmarket Options

The potential losers were not necessarily condemned but could try to resist the drain of local capital to the center. They could appeal to the politicians and press upon them the desirability of protecting local capital markets. Whether potential losers had any chance in obtaining compensation through politics was contingent on two conditions. Success depended first on their capacity to act collectively, a capacity constrained by size and dispersion.[53] Seeking redress at the national level, therefore, was quite impractical; savers were disqualified on account of size and dispersion, whereas industrial districts were too scattered to coordinate their action at the national level. Collective action was more plausible at the level of the local government. This was certainly the case for the

firms, banks, crafts, and local business and labor organizations constituting the industrial district. It was true to a lesser extent of savers, who, through the channel of their savings banks, these quintessentially local monopolies, could reach the ear of their respective local governments.

The success of the potential losers' cause also depended on their relative political power, that is, given their exclusive reliance on local governments, on local governments' power. The power of local governments had two related dimensions. Power first meant regulatory power, that is, the extent to which local governments could interfere with capital flows on their own, free from state supervision. Power also meant political power, that is, the power that local governments had, acting together, to block the central state from claiming greater regulatory power at the detriment of local regulators or to even force the state to modify extant regulation in favor of local interests. Local governments could thus be used as conduit to the national level when local governments enjoyed some kind of constitutional representation, usually in the form of an upper chamber.

Local regulatory power and overall political power were linked. Absent overall political power, local governments enjoyed little local regulatory power. This was especially true in the context of capital market regulation. Capital markets have at all times interested governments, local and central. Being the largest capital borrowers, central state treasuries have always stood ready to manipulate capital markets to their benefit and to the extent of the regulatory power that they have enjoyed. The extent of this regulatory power, understandably, depended on the presence of other potential borrowers and their respective power. The most consistent opponents to central treasuries' efforts to widen the circulation of state debt were local governments, who sought to retain local capital, for their own use and for local investment.

Levels of centralization were--and still are--not uniform across countries. Synthesizing different strands of macro-history, Stein Rokkan drew the following map of eighteenth-century Europe: at the center were the states located on the old trade-belt (stretching from Italy, crossing Switzerland, running along the Rhine toward the Low Countries, and then on to Scandinavia and the Hansean cities).[54] The high density of cities characteristic of this area made it impossible for centralized states to take root. Major state building, instead, took place on either side of the trade belt (Sweden, Austria, Prussia, and Russia in the East, Britain, France, and Spain in the West), albeit with greater strength in the West. In the West the greater surge of commercial activity made it possible for center builders to extract resources easily convertible into currency. The only exception was Spain, a seaward state with

strong peripheries (Basque, Catalonian, and Galician). In the East, by contrast, the cities were much weaker; the only alternative partners for state builders were the owners of land, and the only resources that they could offer were not monetary, but food and manpower.[55] Political centralization in the East precariously rested on economic (and cultural) parochialisms and did not survive the new demands for nationalist autonomy and democratization.

Meant for the eighteenth century, Rokkan's typology needs to be updated to the nineteenth century. There is the need, first, to include a third category--"federal democracy." Political power was quite decentralized in Switzerland and the United States. They were federal states, in which peripheral governments enjoyed considerable formal powers over their respective areas. Together, Switzerland and the United States (*federal democracies*) form the lower end of a centralization continuum showing Britain, France (*centralized states*) at the top and all the other countries so far mentioned (*semicentralized states*) somewhere in the middle. Second, the French occupation of Spain and the Low Countries had a lasting centralizing effect, moving Spain, Belgium, and the Netherlands close to France and Britain.

Third, each dominion found itself in a category that was unique and changing over time. Despite their common colonial origins, the dominions took different paths. Canada had a strong central state initially, a legacy of a colonial administration that was essentially a military apparatus. Only over time did the confederal structure work in the opposite direction to accommodate regional and linguistic diversity. Australasia, in contrast, was a set of seven dominions, arranging into two countries in 1901: New Zealand, which refused to join the Australian Commonwealth and thus remained a centralized state, and the six other states, which joined the Australian Commonwealth, a loose federation.

The degree of state centralization determined the distribution of regulatory powers between center and peripheral governments in financial matters. By 1870, when the story of the gold standard begins, center and periphery governments had already carved up the market for savings according to their relative power. Even though savings banks were nonprofit organizations, initially created by philanthropic individuals or local governments to instill the saving habit among the urban poor, very soon they were seen by public officials as important purchasers of public debt, for whose demand central and local governments were in competition. In centralized states, the central government took over the regulation of savings; local savings banks were displaced by postal savings in Britain[56] and were regulated by the central government in France and Belgium.[57] In semicentralized states and federal democracies, in

contrast, the savings banks became the *chasses gardées* of fiscally strained local governments.[58]

By mid-century, local governments were excluded from the capital market in centralized countries; they controlled the nonprofit segment in semicentralized countries; and they regulated almost all local banking (profit and nonprofit) in federal systems. Moreover, because the distribution of regulatory authority between center and local governments was a reflection of their respective overall power, this distribution had some lasting power. The case of Canada was already settled in favor of central government regulation, like Britain, while Australasia was still financially barren.

From the political institutions we can derive the power of those who were slated to lose from the centralization and internationalization of capital markets. In centralized countries, where local governments enjoyed no regulatory power and had no power to force the central government to interfere with market dynamics, potential losers had no possible recourse. In contrast, in both semicentralized countries and federal democracies, where local governments already enjoyed regulatory power over, in semicentralized countries, nonprofit banks and, in federal democracies, local banks at large, potential losers had the power to use local governments to defend local districts from the threat of capital drain. We now look at the policy instruments that were at the disposal of the potential losers and their hypothesized consequences on cross-border capital flows.

Policy Responses and Cross-Border Capital Flows: Hypotheses

Several sets of testable consequences follow from the present argument. Concerning each country's policy response to the triple challenge of banking specialization, centralization, and internationalization, first, governments in centralized states would do nothing and allow current trends to unfold unhindered. The upshot would be a capital market controlled by a handful of banks, draining peripheral deposits through countrywide branch networks. In semicentralized states, in contrast, the legislation would strengthen the nonprofit banking sector by means of subsidies to local savings banks and credit cooperatives (in the form of state guarantee and tax privilege) and the regulation of rate competition between these and the joint stock banks. The survival and parallel growth of local banks would help ensure the supply of capital to small- and medium-sized firms and the survival of industrial districts. In addition, in the case of debtor countries, the subsidization of savings banks would allow savers to earn a higher rate of interest on their deposits compared

to what they could get from the commercial banks, which, under the gold standard, would be paying a world rate adjusted for local conditions.

In decentralized, federal states, local governments would counter the centralizing effects of capital globalization by protecting local commercial (and nonprofit) banks. Several policies could achieve this goal. The prohibition or limitation of branch banking would limit entry by the large, center banks, protect local banking expertise, and stabilize monitoring costs on lending. If note-issuing banks were linked to local governments, as they were in Switzerland until 1905, the continuation of free banking would make resources available to local governments and thus to local industrial districts. In sum, the more centralized the state, the more centralized the capital market, whereas the more decentralized the state, the more fragmented the capital market.

A second set of hypotheses bears on the degree of globalization of the domestic capital market. Dependence on cross-border capital flows was inversely correlated with the fragmentation of the domestic capital market. In creditor countries, fragmentation meant that a smaller share of the pool of national savings was available for foreign investment. The existence of vigorous local banking facilities had the effect of de facto "nationalizing" ("localizing" rather) local savings. Conversely, centralization made the entire savings pool available for investment abroad. In debtor countries, fragmentation meant that a smaller share of investment opportunities was open to foreign investment. Most investments in the periphery, those that were financed by savings banks, credit cooperatives, or local commercial banks, were off limits, because the presence of local capital reduced the need for foreign capital, and also because these local banks and firms were unable to attract foreign capital. Centralization, in contrast, opened the entire capital market to foreign investment. Therefore, in both creditor and debtor countries, fragmentation implied that a smaller share of the economy was to be internationalized. Fragmentation hindered international interdependence, whereas centralization made it easier.[59]

III. THE EVIDENCE

Market Fragmentation Versus Centralization

The first hypothesis makes the centralization of the capital market a function of political centralization. This correlation was observed with respect to the banking policies adopted in each country first. Country analyses show that the centralized countries (Britain, France, Belgium, the Netherlands, Canada, and the seven Australasian states, before six of them decided in 1901 to create a

federal union) sanctioned the growth of center banks at the expense of local and nonprofit banking sectors;[60] that semicentralized countries (Germany, Austria-Hungary, Denmark, Sweden, and Italy) protected the nonprofit banking sector;[61] and that the federal democracies protected local commercial banks, through restrictions of branching in the United States and the subsidizing of cantonal banks in Switzerland.[62] Norway pursued both the nonprofit and the ban-on-branching policies.[63]

These various policy responses, which space constraints do not allow me to detail here, would lead to radical--and more easily quantifiable--differences in capital market profiles across countries. By 1913, the political protection of local and nonprofit banking in federal and semicentralized states had considerably fragmented the fast-growing market for individual deposits. Whereas between 0 and 5 percent of the deposit market went to local savings banks and mutual credit societies in Britain, Belgium, France, Canada, and New Zealand, equivalent figures were above 50 percent in Denmark, Germany, Austria, and Norway, 40 percent in Italy, 35 percent in Sweden, and 18 percent in the Netherlands (Table 2). Although equivalent data for Switzerland and the United States were, respectively, 27 and 21 percent, they came on top of the market share held by local profit banks--the local and canton banks in Switzerland and the state-chartered banks in the United States--evaluated at 51 and 39 percent, respectively, bringing Switzerland to a whopping 79 percent and the United States to 60 percent. The data for Australia are misleading, reflecting the union of its six member states in 1901. Each state had managed to establish a large savings bank to hold and place its railways bonds; these savings banks, which would be coded as "nonprofit, state" banks until 1901 (like French and Belgian savings banks), are coded as "nonprofit, private" banks after 1901 (like German, Austrian, Italian, and Scandinavian savings banks). Clearly, Britain, France, Belgium, and the dominions (Australia excepted) had by 1913 a centralized deposit market, whereas the other states did not, allowing instead peripheral governments to split the lion's share.

[Table 2]

A second measure of fragmentation is the importance of unit banking. Unit banking is a system in which banks are not allowed to establish branches outside of the area where they are headquartered. Although legally barred from branching out in only two countries, Norway and the United States, center banks had difficulties penetrating peripheral markets in all other federal and semicentralized countries as well. Rather than open branches, they relied on correspondents to bank with the periphery. Unit banking was important in the United States, Italy, Switzerland, the Netherlands, and Germany. In Britain,

France, and the dominions, in contrast, joint-stock banks weaved nationwide branch networks. Table 3 shows a 1929 measure of unit banking--a ratio with, as numerator, the number of commercial banks, and, as denominator, the number of commercial banks and branches.[64]

[Table 3]

As one would expect, the two measures of fragmentation--local banking and unit banking--are correlated (Pearson = 0.62). Both measures should likewise be inversely correlated with the degree of political centralization achieved in each country. The hypothesis is tested in Table 4. The independent variable, political centralization, is proxied by its tax component--the proportion of national taxes going to the central government in circa 1880.[65] The dependent variable, banking centralization, is alternatively measured by the 1913 deposit share of the local banks (measured by the share of deposits held by the nonprofit, non-state banking sector in addition to local commercial banks in the federal democracies) and the 1929 indicator of unit banking. A proxy for the dominions is added on the right-hand side of the regression equation to account for the fact that the centralization of the banking systems found in the dominions had perhaps more to do with their prior colonial status than with their respective degrees of centralization in 1880; the fact that they all showed a high degree of banking centralization despite wide variations in tax centralization (high in Canada and New Zealand, low in Australia) would tend to confirm this conjecture.[66] The findings, reported in Table 4, confirm the predictions. The coefficients for the tax proxy are correctly signed and statistically significant when tested against the null hypothesis.[67]

[Table 4]

Degree of Dependence on Cross-Border Flows

Table 5 provides two values of long-term foreign investment stocks--the first, weighted per capita, the second, by unit of GNP. Capital flows were not evenly distributed across economies. British, Swiss, French, and Dutch savers held a greater proportion of foreign assets than their German and Belgian counterparts, whereas Canadian and Australian borrowers were more leveraged abroad than their Austrian, Italian, and U.S. equivalents. This dependence on the international capital market was not a function of size--smaller economies were not more dependent on international capital markets than larger ones (see Graph 1).[68] Dependence on the international capital market was a function of industrialization only to the extent that most industrially advanced countries (United Kingdom, Belgium, Switzerland, France and Germany) did export

capital while most backward countries (Italy, Norway, Spain, Canada, Australia, Austria-Hungary) did import capital, but the intensity with which each country did so was not a function of relative industrialization (see Graph 2). Moreover, there were two exceptions to the regularity just mentioned: the United States, the world's most industrialized country in 1913, was still a net debtor, whereas the Netherlands, despite late industrialization, was a net creditor.[69]

[Table 5, Graph 1, Graph 2]

The key to cross-national variations in levels of dependence on foreign capital flows--whether in or out--reached by each country, I claim, should be sought in the degree of centralization of the domestic capital market--and thus of political centralization. Britain, France, the Netherlands, and Belgium should score high as centralized creditors; Canada, Australia, and New Zealand should score high as centralized debtors. All other countries should score relatively low.

The dependent variable is the stock of foreign investment held in 1914 divided by GNP. I used absolute values, so as to measure the relative dependence of the economy on foreign investment in and out, without distinction between debtor and creditor status. The independent variables alternatively are the degrees of centralization of political institutions and financial markets (found to be correlated in Table 4). Three specifications of centralization are tested: (1) the degree of fragmentation of the domestic capital market in 1913, measured by the proportion of deposits held by local and nonprofit banks; (2) the same degree of fragmentation, measured by the unit-banking ratio; and (3) the tax proxy for state centralization, along with a proxy for the dominions for the same reasons as those given in the discussion of Table 4.

The results are reported in Table 6. Switzerland is an outlyer across specifications--a finding for which I am unable to offer any explanation.[70] Regressions II to IV exclude the Swiss case. Graphs 3 and 4 visualize regressions I and IV (with Switzerland added), respectively. The expected patterns are correctly signed and statistically significant. Controlling for size and stage of industrialization does not significantly modify the results except in the case of specification III, using the unit-banking ratio, which drops below standard levels of significance (results unreported).

[Table 6, Graphs 3 and 4]

Conclusion

The gold standard revolutionized domestic and international capital markets. Along with changes in banking instruments, such as the rise of deposits on the liability side and that of overdrafts on the asset side, the gold standard brought financial centers closer to one another, while taking each financial center farther away from its own periphery. These changes had distinct distributional effects; they favored center banks in all countries and large firms in debtor countries, while harming agrarians and small- and medium-sized firms in all countries and savers in debtor countries.

The surge in global finance, however, was not inevitable. Although triggered by changes of an exogenous nature, the surge in cross-border foreign investments would have never reached these unprecedented--and still unmatched--levels had it not found fertile ground in domestic institutions. The existence of a handful of countries with centralized political institutions, in which the government could ignore the ply of the potential losers--local districts of small farms and firms--without incurring political retribution, provided the international financial system with its largest suppliers (Britain, France, Belgium, the Netherlands) and demanders (Canada, Australasia) of foreign capital.

The surge in global finance was not uniform either. Decentralized countries, in which the potential losers could avail themselves of the regulatory and political power enjoyed by local governments, did not embrace global finance, at least not to the same extent. In those countries governments passed policies that had the effect of fragmenting the domestic capital market and preventing the drain of peripheries from local savings. Nor was the centralized countries' new dependence on foreign capital markets irreversible. The outbreak of World War I pricked the global bubble, leaving those countries that were the most vested abroad with high losses and condemning those that were the most dependent on foreign capital to finance their debt to difficult fiscal choices.

Although there are limits to how much one can learn from the past, a few aspects of global finance in the golden age seem relevant to the present. First, the often-noted sympathy between sub- and supra-national levels of governance is absent from the nineteenth-century experiment. One often hears or reads the argument that the erosion of the nation-state occurs at the benefit of the other levels of governance, both infra and supra simultaneously.[71] In contrast, the gold standard experiment in global finance points to a negative relation between local power and globalization. States with powerful subnational entities were the least able to take part in the global market. Globalization, where it occurred, strengthened the national level at the expense of the local. A century later,

subnational governments are being more active again, not so much because they benefit from the erosion of national power, but because they are the first to suffer from it. With national governments cutting regional development programs, local governments are now locked into a suboptimal competition among one another for capital resources. Today's capital globalization, where and the extent to which it occurs, is more likely to undermine than to strengthen industrial districts and flexible specialization.

Another fashionable idea at the moment is that globalization compels banks all over the world to converge around the German universal model of banking.[72] Still, the exact opposite occurred in the nineteenth century. In universal banking, banks take a long-term interest in the form of loans or participation in firms. It is the reverse of specialized banking, in which deposit banks lend short, whereas smaller, highly-capitalized banks lend long. By the turn of the century, specialization, centralization, and globalization were mutually reinforcing trends, which eradicated universal banking in France and Britain. Only in financial systems where centralization and globalization were the least felt, that is, in most decentralized polities (Germany, Austria-Hungary, Italy, Scandinavia), was universal banking able to persist. The present trend toward the take-over of security firms by huge commercial banks is probably less symptomatic of a deliberate move toward universality than the incidental effect of a trend toward banking concentration, concomitant with the current surge in global finance. In light of their increasing dependence on money-market funding, a liability that is even more volatile than deposits, today's large transnational commercial banks are even less likely to a take long-term interest in industry than their nineteenth-century forebears.[73]

Last, the present analysis challenges a staple idea of the current literature: "the low domestic political visibility of the issue of financial liberalization relative to that of trade liberalization."[74] It is the idea that props up cognitive, normative, and epistemic explanations of current globalization.[75] This case study suggests that financial liberalization, rather than being a non-visible idea, was an idea in the service of centralization, which could only carry the day in already-centralized polities. Political apathy with respect to financial issues, when it occurs, is no evidence of insurmountable technical complexity; an entrepreneur needs little expertise to understand that banking concentration, centralization, and extroversion, if not curbed, will sooner or later raise the cost of borrowed capital. The real issue is collective action, easier in decentralized than in centralized polities. Whether local districts still have the capacity nowadays to use local governments to check financial liberalization is an empirical issue, worthy of research.

Endnotes

[1] Loriaux 1991, Goodman and Pauly 1993, Andrews 1994, Frieden and Rogowski 1996.

[2] Bates and Lien 1985; Frieden and Rogowski 1996.

[3] Strange 1986; Webb 1991; Andrews 1994; Cerny 1995.

[4] Haggard and Maxfield 1996.

[5] Helleiner 1994, 16.

[6] Garrett and Lange 1995, Garrett 1995.

[7] Andrews 1994; Frieden and Rogowski 1996.

[8] Frieden 1991.

[9] Goodman and Pauly 1993; Andrews 1994; Frieden and Rogowski 1996; Haggard and Maxfield 1996.

[10] Frieden and Rogowski 1996.

[11] Andrews 1994.

[12] Roemer 1994.

[13] The price shock is taken as exogenous in Rogowski's 1989 setup and also in Frieden and Rogowski 1996. In Rogowski's story the exogenous price shock increases the wealth and power of the supporters of internationalization, thereby leading to greater policy openness. In the present story, the price shock comes too late, if at all, to help the partisans of internationalization prevail over their opponents.

[14] Assets are the left-hand side of a balance-sheet and liabilities are the right-hand side. *Assets* are investments, which banks finance with resources or liabilities. Assets and liabilities are arranged according to maturity. *Short assets* typically include cash, loans to the stock market, short-term government debt, three-to-six-month credit advances (also called *overdrafts*, and commercial paper (bills of exchange, acceptances). A *bill of exchange* is a buyer's promise to pay in three months; the seller can cash it immediately with a bank. An *acceptance* is an international bill of exchange. *Long assets* include long-term government debt, participations in other joint-stock companies, and all loans or advances with a maturity longer than six months. *Short liabilities*

include deposits, positive current accounts, and, in some cases, notes. *Long liabilities* include equity (capital and reserves).

[15] Lamoreaux 1994.

[16] Cottrell 1992, 53.

[17] Tilly 1986, 121.

[18] Data on commercial and savings bank deposits are found, for Australia, in Mitchell 1983, 1992; and Butlin et al. 1971; and, for Denmark, Johansen 1985. Data on financial assets are found in Golsdmith 1969.

[19] The liquidity problems arising from the greater importance taken by deposits in banks resources are underscored in Lamoreaux 1994, 107.

[20] The terms *bill of exchange* and *overdraft* are defined in note 14.

[21] Cottrell 1980, 204.

[22] Collins 1991, 41.

[23] Bouvier 1968, 221. See also Lévy-Leboyer 1976, 462.

[24] Bouvier 1968, 162; Lamoreaux 1994, 89.

[25] Conti 1993, 311; Polsi 1996, 127; Riesser 1911, 306.

[26] The Deutsche Bank was organized in 1870 by a group of private bankers to capture a greater share of the foreign short-term credit and payments business (Tilly 1991, 93). Broz argues that the Federal Reserve Bank was established to develop a market for acceptances in New York; Broz 1997.

[27] On Britain, De Cecco 1974, 101 and Ziegler 1990, 135; on France, Bouvier 1973, 160 and Lescure 1995, 318; on Belgium, Kauch 1950, pp. 235, 260.

[28] Lamoreaux 1994, 144.

[29] Kindleberger 1978, pp. 72-75.

[30] Bouvier 1968; Cameron 1991, pp. 14-16.

[31] The gold standard is viewed by Bordo and Kydland (1995) as a solution to the time-inconsistency problem analyzed by Kydland and Prescott (1977). In the initial story, a government with discretion over the formulation of monetary policy will have an incentive to engineer a surprise inflation to stimulate

employment. Absent a binding commitment, the public will come to anticipate the outcome, leading to an inflationary equilibrium. A solution to the dilemma is for the government to waive discretion and pledge to abide by a binding rule. A variation on that story, one that makes time inconsistency relevant to the gold standard runs like this: a government with discretion over its monetary and fiscal policy will have an incentive to borrow and then default on its debt through inflation or suspension of payments. Anticipating default, bond holders will either ask for a higher interest rate or not purchase government debt. A solution to the dilemma is for the government to commit to gold convertibility at a fixed rate--a transparent and simple rule (Bordo and Kydland 1995). Bordo and Schwartz (1994) found that those countries that adhered to the gold standard rule generally had lower fiscal deficits, more stable money growth, and lower inflation rates than those that did not.

[32] Bordo and Rockoff 1995, 18.

[33] De Cecco 1974, 52.

[34] Martin-Aceña 1994, 160.

[35] Martin-Aceña 1994, 144.

[36] Bairoch 1976, 103.

[37] Green and Urquhart 1976, pp. 241 and 244.

[38] Cameron 1991, 13.

[39] Edelstein 1982, 138.

[40] Bloomfield A. 1968, 4.

[41] Dunning 1992, 116.

[42] Edelstein 1982, 140.

[43] Platt 1984, pp. 84, 92, 165, 176.

[44] For pioneering work along these lines, see Gourevitch 1977.

[45] Kennedy 1987; Bouvier 1968.

[46] Lamoreaux 1994, 154.

[47] Lamoreaux 1994, 154.

[48] Guinnane 1994.

[49] Tilly 1966, 107.

[50] Flexible specialization has attracted a good deal of attention among economic historians, such as Piore and Sabel 1984, Sabel and Zeitlin 1985, Herrigel 1996, Deeg 1992, and the contributions to Bagnasco and Sabel 1995, and Sabel and Zeitlin 1997.

[51] Platt 1984, 6.

[52] Herrigel 1996.

[53] Olson 1965.

[54] Rokkan and Urwin 1983.

[55] Rokkan and Urwin 1983, 33.

[56] Horne 1947.

[57] Vogler 1991; Chlepner 1926, 96.

[58] Albrecht 1989, 62; M„rz 1984, 39; Deeg 1992, 77; Hansen, S. A. 1982, 590; Polsi 1993, pp. 234, 249.

[59] A third set of hypotheses would bear on bank-firm (and bank-farm) relations, distant in centralized polities, closer in decentralized polities. The essentially qualitative nature of the literature on this point prevents us from pursuing it within the restricted format of this article. Only the first two hypotheses are tested against the historical record.

[60] On Britain, Pressnell 1956, 285; Cottrell 1992; Horne 1947; Guinnane 1994; on France, Bouvier 1968; Gueslin 1992; Gueslin and Lescure 1995; on Belgium, Chlepner 1926; on the Netherlands, Kymmel 1996; on Canada, Drummond 1991; Rudin 1990; on Australia, Wotherspoon 1979; Wallace 1964.

[61] On Germany, Deeg 1992; on Austria-Hungary, Michel 1976, pp. 30-43, Köver 1991, Albrecht 1990, 79; on Denmark, Hansen Per H. 1991 and Hansen S. A. 1982; on Sweden, Nygren 1983; on Norway, Egge 1983; on Italy, Polsi 1993, 1996.

[62] Lamoreaux (1994) describes the New England extended district at the beginning of the century, at a time when most New England banks were still

engaged in financing investment. On Swiss banking, see Hartmann 1947 and Bänziger 1985.

[63] Egge 1983; Lange 1994.

[64] No earlier data could be found. There is no reason to suspect, however, that the country ordering for 1929 would be significantly different from that for 1913.

[65] Although the 1880 benchmark was chosen because it is the earliest date for which data are available, the tax proportions and the relative ordering of countries do not significantly change throughout the 1880-1913 period in the case of European countries. Data for the dominions tend to display greater variations because of their late establishment.

[66] The dominions differ from the other cases in that market institutions pre-existed political institutions.

[67] Results hold when controlling for Goldsmith 's (1969) "financial market depth"--the ratio of the assets of financial institutions to gross national product for 1913 (Verdier 1997).

[68] For an argument that small economies are more dependent on world markets, see Katzenstein 1985.

[69] A third hypothesis would make international capital dependence a function of relative factor endowments, with capital-rich countries exporting capital in proportion to their relative capital surplus, and capital-scarce countries importing capital in proportion to their relative capital deficit. The difficulties in operationalizing the concept of relative factor endowments--one should measure all factor endowments (not just capital endowments) and rank countries according to their respective factor ratios--are such that relative industrialization is generally used as proxy for capital endowment thereby making the endowment hypothesis identical to the already discussed industrialization hypothesis; Rogowski 1989, 27.

[70] Although there is no good reason to exclude the Swiss observation (a total creditor position of $1.5 billion in 1914, the second-highest capital-export-per-capita figure behind Britain), Cameron (1991, pp. 12-13) warns that "[b]y the beginning of the twentieth century Switzerland had apparently recovered its position as a capital exporter, but that is by no means certain; because of its geographical and political position, Switzerland became a favorite site for the location of international holding companies, especially in the electrical industry, resulting in myriad inflows and outflows of capital."

[71] This claim is present in the flexible specialization literature (Sabel 1989; Herrigel 1996, 275), the European integration literature (neofunctionalism at large and also Du Granrut 1994, Ansel forth.), and the globalization literature (Cerny 1995, 623).

[72] Universality is presently a theme with much theoretical and empirical support. The economic literature, much kindled by the successive U.S. Congressional attempts, so far in vain, to allow universal banking in the United States, justifies universal banking by the presence of asymmetric information in investment markets. In Europe, the Second Banking Directive as implemented on 1st January 1993, established a single, unionwide banking license permitting universal banking. The market trend, in Europe, has been toward the creation of financial service conglomerates providing an extensive range of services.

[73] For more on this, Vitols 1995.

[74] Helleiner 1994, 203.

[75] For an isolated attempt to bring democratic politics to bear on the study of capital market deregulation, see Moran 1991, 133.

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TABLE 1

Potential Winners and Losers from an Eventual Centralization and Internationalization of Capital Flows

	WINNERS	LOSERS
CREDITOR	savers	small- and medium-sized firms
COUNTRY	center banks	farms
DEBTOR	center banks	savers
COUNTRY	large firms	small- and medium-sized firms
		farms

Note: large firms in creditor countries should be indifferent.

TABLE 2

Deposit Market Shares of the Four Banking Sectors 1913 (in %)

	nonprofit, private[a]	nonprofit, state[b]	profit, center[c]	profit, local[d]
Canada	4	5	91	0
U.K.	5	15	80	0
Spain	33	0	67	0
France	0	34	66	0
Australia	34	1	65	0
Sweden	35	2	63	0
the Netherlands	17	24	59	0
Belgium	1	40	59	0
New Zealand	4	38	58	0
Norway	51	0	49	0
U.S.	21[h]	0[h]	40[h]	39[h]
Austria-Hyngary	58[i]	5[i]	37[i]	0[i]
Germany	71	1	28	0
Italy	40	33	27	0
Denmark	75	0	25	0
Switzerland	27	0	22	51

[a] savings banks, mutual credit societies, mortgage banks.

[b] postal savings; savings banks in France and Belgium.

[c] commercial banks regulated by the central government.

[d] commercial banks regulated by local governments (State banks in US; local and cantonal banks in Switzerland).

[h] 1914.

[i] Austria and the Czech Lands.

Sources: Australia: Butlin, Hall and White, 1971, 114, 503, 525; Austria-Hungary: Mitchell 1992, 774, 781; Belgium: Société des nations 1931, 116, Mitchell 1992, 781, 784; Britain: Société des nations 1931, 260; Canada: Société des nations 1931, 329; Denmark: Société des nations 1931, 125; France: Mitchell 1992, 774, 782; Germany: Deutsche Bundesbank 1976, 57, 63, 65, 76, 102, 112, 120; Italy: Mitchell 1992, 774, 782, Société des nations 1931, 187; the Netherlands: Nederlandsche Bank 1987, 34, 48, 52; New Zealand: Société des nations 1931, 447; Norway: Société des nations 1931, 199, Mitchell 1992, 782; Spain: Martin-Aceña 1995, 522, Mitchell 1992, 782; Sweden: Société des nations 1931, 275, Mitchell 1992, 783; Switzerland: Ritzmann 1973, Tab. 1; the United States: Société des nations 1931, 346, Mitchell 1983, 775, 785.

TABLE 3

Unit Banking Ratio 1929

United States	.47	Belgium	.06
Italy	.29	Sweden	.03
Switzerland	.24	New Zealand	.01
Netherlands	.21	Australia	.006
Germany	.18	Canada	.003
France	.09	Britain	.002

Note: The numerator is the number of commercial banks. The denominator is the number of commercial banks and commercial bank branches. A higher ratio means a higher occurrence of unit banking. In contrast, a lower ratio reflects a greater occurrence of branch banking.

Sources: France: Gueslin 1992, 86; other countries: Société des nations 1931, Table II, 13.

TABLE 4

Capital Market Fragmentation as a Negative Function of Political Centralization

Dependent Variable:	*Local Banking 1913*		*Unit-banking ratio 1929*
	expected sign	I	II
intercept	+/-	1.10	0.40
Tax proxy	-	-0.01	-0.004
		(-4.42)***	(-2.09)*
Dominion (dummy)	+/-	-0.37	-0.20
		(-3.12)***	(-2.57)**
corrected R^2		0.62	0.40
number of cases		15[a]	12[b]

Note: * = Significant at 10 percent level. ** = Significant at 5 percent level. *** = Significant at 1 percent level. Values of *t*-statistics are given in parentheses.

[a] Australia, Belgium, Britain, Canada, Denmark, France, Germany, Italy, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, United States.

[b] Australia, Belgium, Britain, Canada, France, Germany, Italy, Netherlands, New Zealand, Sweden, Switzerland, United States.

Sources. Local Banking 1913: the sum of the first and fourth columns of Table 2. Unit banking: Table 3. Tax proxy: central government taxes as percentage of general government taxes circa 1880; for Western Europe, excluding Spain, Flora (1983, 273); data for Austria-Hungary could not be used, for excluding the non-Austrian part of the Empire; for Spain, Bernis (1919, 338, 347); for the United States, U.S. Bureau of the Census (1975, 1119); for Canada, Canada, Department of Agriculture (1890, 104, 117); data for Australia are for 1907 (Mitchell 1983, 802; Commonwealth Bureau of Census and Statistics 1908, 668); data for New Zealand are for 1913 (Bloomfield G. T.

1984, 333, 352).

TABLE 5

Long-Term Foreign Investment Stocks 1914 (in 1914 US$)

outflows (+), inflows (-)

	per capita	divided by GNP
Canada	-463	-1.44
U.K.	413	1.66
Switzerland	375	1.96
Australia	-340	-0.93
the Netherlands	333	1.77
France	236	0.99
Belgium	186	1.20
Germany	97	0.52
Spain	-95	-0.79
Sweden	-95	-0.57
Norway	-52	-0.56
Austria-Hungary	-52	-0.38
U.S.A.	-37	-0.09
Italy	-27	-0.20

Note: All data are gross foreign investments as of 1914, except in the case of the United States, the only country with known significant two-way flows, for which data are net.

Sources: Foreign investment stocks in 1914 U.S. dollars were found in Cameron 1991, 13, except for Sweden and Norway, for which the data were found in Bloomfield A. (1968, 43-44) and converted in U.S. dollars at the old gold parity of 0.2680 krone to the dollar (Svennilson 1954, 318). Data used in the computation of stocks for Sweden and Norway only start in 1861 and 1871 respectively, with the effect of slightly underestimating Swedish liability while slightly over-

estimating Norwegian liability. Population data are from Maddison (1991, 232-35). GNP data are for 1913: 1913 GNP data in current prices (Mitchell 1983, 1992; for Austria-Hungary, Komlos 1990, 126) were converted in U.S. dollars using 1913 exchange rates (Svennilson 1954, 318-9).

TABLE 6

Cross-Border Capital Investments as a Negative Function of Capital Market Fragmentation

Dependent Variable: *Absolute value of foreign investment/GNP as of 1913-14*

	expected sign	I	II	III	IV
intercept	+/-	1.23	1.40	1.25	-0.54
Local banking 1913	-	-0.84	-1.73		
		(-1.41)	(-4.27)***		
Unit banking 1929	-			-2.33	
				(-2.18)*	
Tax proxy	+				0.02
					(3.46)***
Dominion (dummy)	+/-				0.69
					(2.22)*
corrected R^2		0.07	0.59	0.29	0.51
number of cases		14[a]	13[b]	10[c]	12[d]

Note: * = Significant at 10 percent level. ** = Significant at 5 percent level. *** = Significant at 1 percent level. Values of *t*-statistics are given in parentheses.

[a] Australia, Austria-Hungary, Belgium, Britain, Canada, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, the United States.

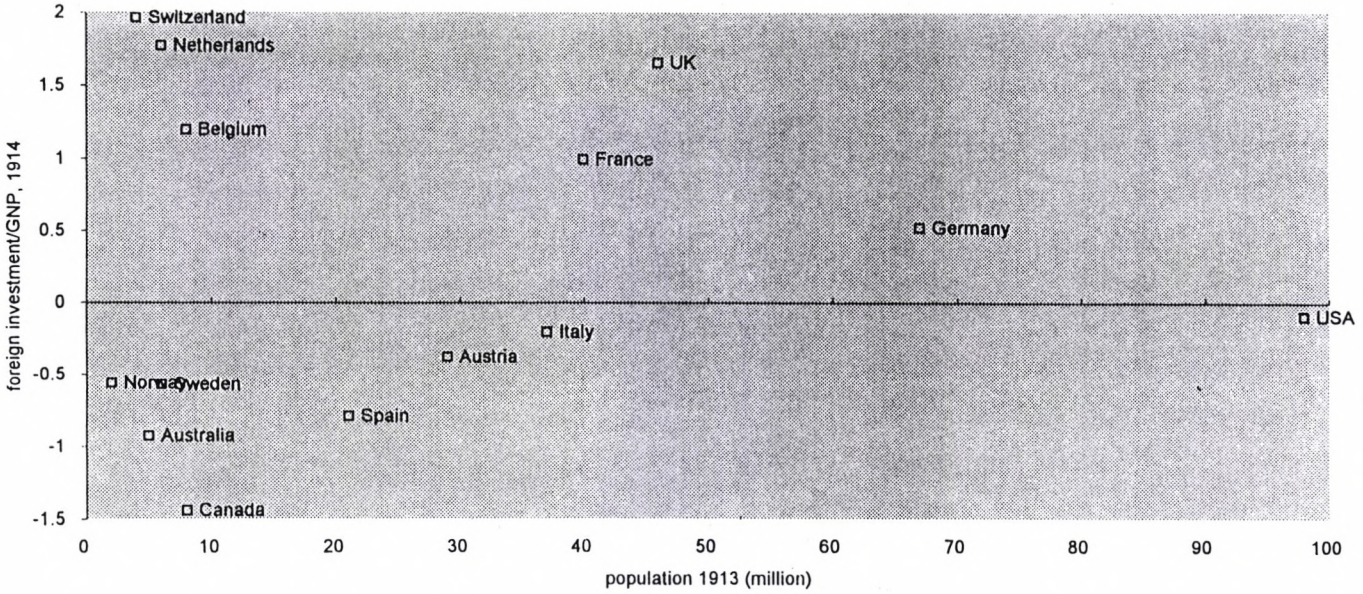
[b] Australia, Austria-Hungary, Belgium, Britain, Canada, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, the United States.

[c] Australia, Belgium, Britain, Canada, France, Germany, Italy, Netherlands, Sweden, the United States.

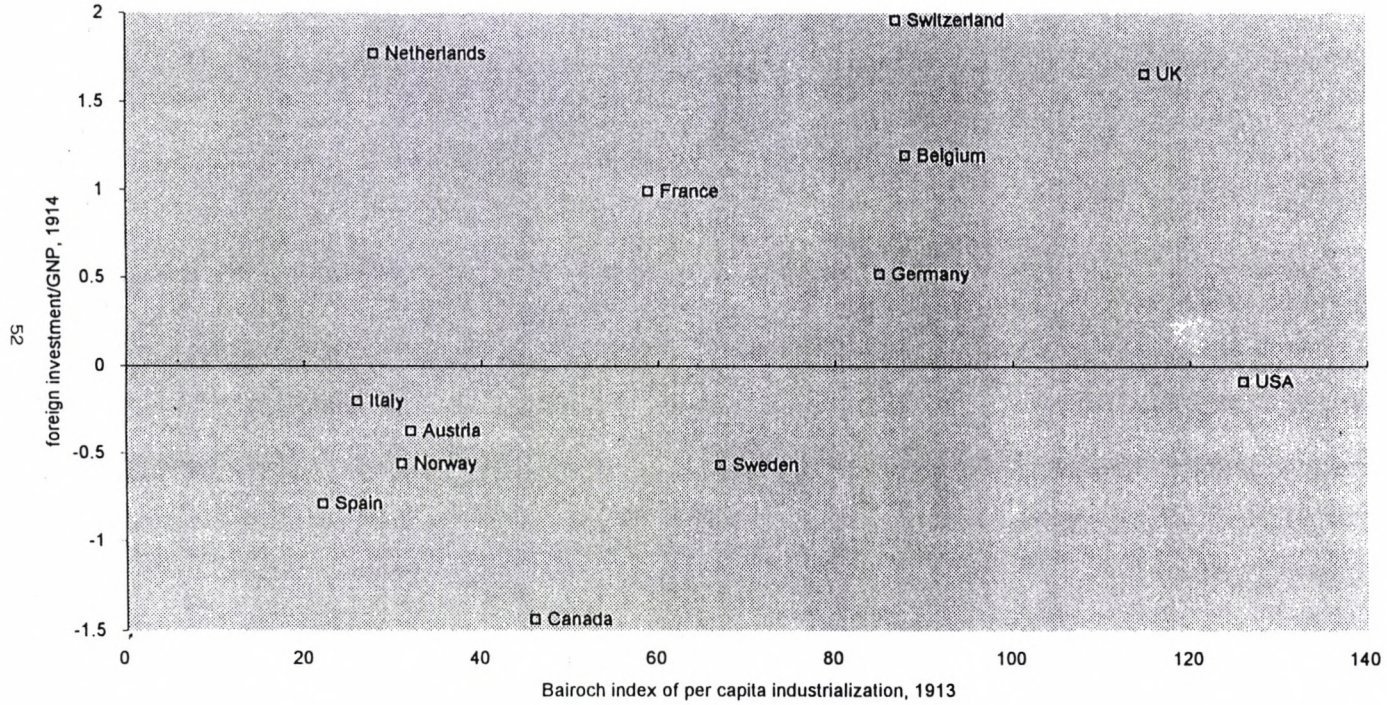
[d] Australia, Belgium, Britain, Canada, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, the United States.

Sources: Foreign investment/GNP: see Table 5. Local banking 1913: see Table 2. Unit banking: see Table 3. Tax proxy: see Table 4.

GRAPH 1
Foreign stock of long-term investment divided by GNP
as a function of population size, 1914



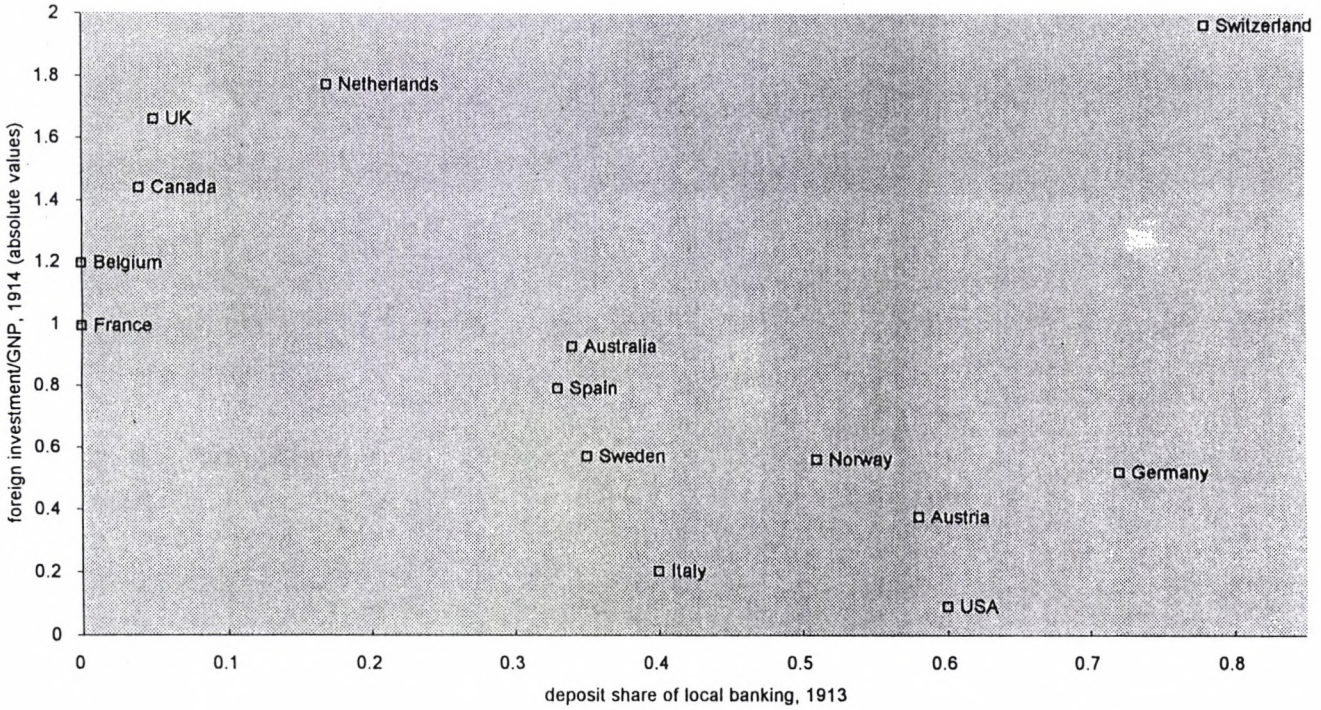
GRAPH 2
Foreign stock of long-term investment divided by GNP
as a function of per capita industrialization, 1914



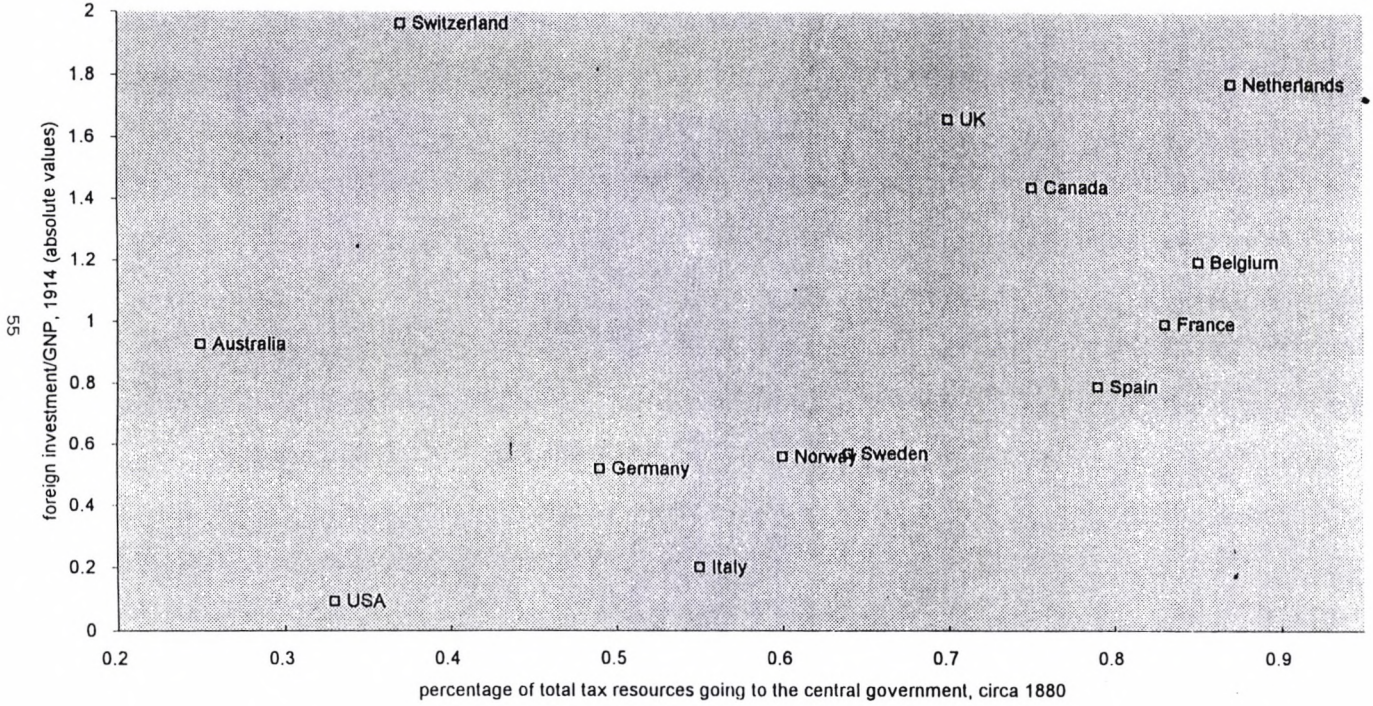
[Graph 2]

Sources: Bairoch Index of Per Capita Industrialization (Rogowski 1989, p. 29). Long-Term Foreign Investment Stocks divided by GNP, 1914: see Table 5.

GRAPH 3
Foreign stock of long-term investment divided by GNP
as a function of capital market fragmentation, 1914



GRAPH 4
Foreign stock of long-term investment divided by GNP
as a function of political centralization



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